DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-010846
Date Inspected: 20-Dec-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name:	Li Yang	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☑ Yes ☐ No ☐ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: OBG Trail Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 1AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Longitudinal Diaphragm to Longitudinal Diaphragm Splice at Elevation 4750mm at North and South side between Panel Point (PP) 8.5 and PP 9.0 at Segment 1AW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M27 x 120 RC Set# DHGM270020 and final torque required is 847 N-m and

Bolt sizes used were M27 x 140 RC Set# DHGM270021 and final torque required is 853 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 584.

Segment 2AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Trays at Bottom Panel between Panel Point (PP) 13, PP 14, PP 15 and PP 16 at North and South for Segment 2AW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60571 and final torque required is 393 N-m and

Bolt sizes used were M3/4 x 3 1/4 RC Set# DHG60573 and final torque required is 193 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 114.

Segment 2BW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Trays at Bottom Panel between Panel Point (PP) 17 and PP 18 at North and South for Segment 2BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60571 and final torque required is 393 N-m and

Bolt sizes used were M3/4 x 3 1/4 RC Set# DHG60573 and final torque required is 193 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 114.

Segment 5CW to 6AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Side Panel to Side Panel T-Rib to T-Rib Web for Segment 6AW to 6BWCounter Weight side. Weld Identified as SP-094-001 -032-034-036. The welder was identified as 066674. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2-F. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Segment 6AW to 6BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel to Deck Panel I-Rib to I-Rib Web for Segment 6AW to 6BW Cross Beam side back gouged and welding been performed, Weld Identified as DP5130-001-016. The welder was identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-3213-B-U3b. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Segment 5CW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Corner Assembly at Counter Weight side for Segment 5CW. Weld Identified as CA021-005. The welder was identified as 037840. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1. The welding parameters measured and

recorded by ZPMC QC were within the tolerance

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Corner Assembly at Counter Weight side for Segment 6AW. Weld Identified as CA022-001. The welder was identified as 037840. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Segment 5CW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) on Corner Assembly at Counter Weight side for Segment 5CW. Weld Identified as CA021-006. The welder was identified as 037840. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Segment 6AW to 6BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) on Side Panel after back gouging and welding from outside been performed for Segment 6AW. Weld Identified as OBW6C-004 and 005. The welder was identified as 066261, 067942 and 067571. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U2-FCM-1. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) on Corner Assembly at Counter Weight side for Segment 6AW. Weld Identified as CA025-001. The welder was identified as 037840. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-Tc-U4b-FCM-1. The welding parameters measured and recorded by ZPMC QC were within the tolerance.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

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Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer